Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-7   (Cancelled)

8.   (Original) An automated system for selecting an archwire for a patient comprising:

a patient internal arch curve recorder adapted to obtain a representation of the patient's internal arch curve;

data on available archwires;

a mechanism adapted to compare an obtained representation of a patient's internal arch curve with the data on available archwires and to identify an archwire based on any such comparison.

9.   (Original) The system of claim 8 wherein the system further comprises data relating to the current position, orientation, shape and/or size of the patient's teeth.

10.   (Original) The system of claim 8 wherein the system further comprises an input mechanism adapted to accept a treatment diagnosis.

11.   (Original) The system of claim 10 wherein the mechanism adapted to compare an obtained representation of a patient's internal arch curve with data on available archwires is also adapted to utilize an input treatment diagnosis in identifying an archwire.

12.   (Original) The system of claim 8 wherein the system comprises a communications mechanism adapted to communicate to an archwire supplier that the identified archwire is to be provided to a user of the system.

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Amdt. dated December 17, 2004
Reply to Office action of September 20, 2004

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currently amended

13.   (~~Original~~) The system of claim 8 wherein the patient internal arch curve recorder comprises a means for obtaining an electronic representation of at least a portion of a study model or image.

currently amended

14.   (~~Original~~) The system of claim 13 wherein the patient internal arch curve recorder comprises a digital camera or scanner.

currently amended

15.   (~~Original~~) The system of claim 8 wherein the data on available archwires comprises data on archwires comprising one of at least three different shapes.

currently amended

16.   (~~Original~~) The system of claim 15 wherein the data on available archwires comprises data on at least two archwires having the same shape wherein one of the archwires is adapted for use in a non-extraction treatment plan and another of the archwires is adapted for use in an extraction treatment plan.

17.   (Cancelled)

18.   (New) The system of claim 8 wherein the system selects an archwire based on the shape of the patient's internal arch curve.

19.   (New) The system of claim 18 wherein the system selects an archwire by comparing the shape of the patient's internal arch curve with the shapes of available archwires.

20.   (New) An automated system for selecting an archwire for a patient that selects an archwire by:

obtaining a representation of the patient's internal arch curve (PIAC);

selecting an archwire shape based at least partially on the PIAC representation; and

selecting an archwire to be used based on the selected archwire shape.